

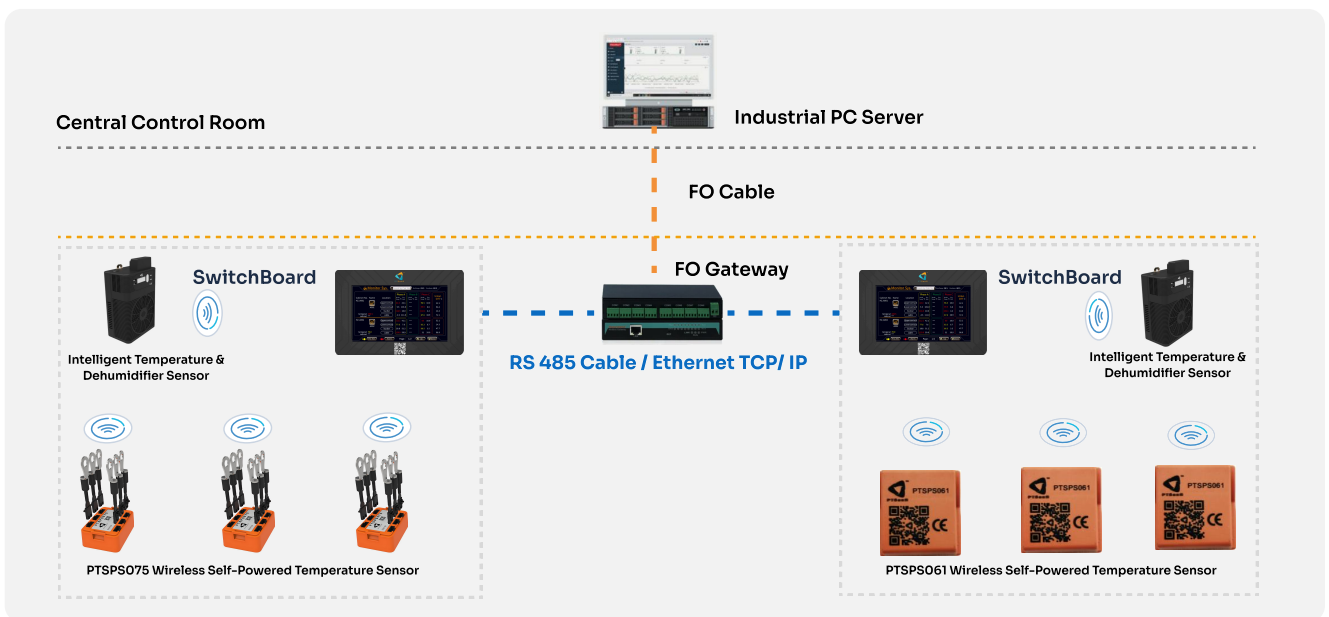
PTSPEC6 Intelligent Temperature & Dehumidifier Control

Product Overview

The PTSenR™ PTSPEC6 intelligent temperature control dehumidifier is a specialized solution designed to protect electrical equipment from moisture-related risks, especially in outdoor environments where humidity and temperature fluctuations threaten operational safety. Using semiconductor refrigeration technology, it draws in humid air from switchgear and electrical cabinets, condenses it into water, and discharges it from the enclosure—preventing condensation that can degrade insulation or cause short circuits.

The unit operates with minimal power consumption and negligible thermal impact inside the cabinet. For extended adaptability in colder climates, it can also control external heaters and fans. Built with international microcontroller chips and advanced fuzzy control algorithms, it features a user-friendly interface, RS485 communication, and remote monitoring capabilities—making it an ideal environmental management tool for industrial power applications.

System Architecture

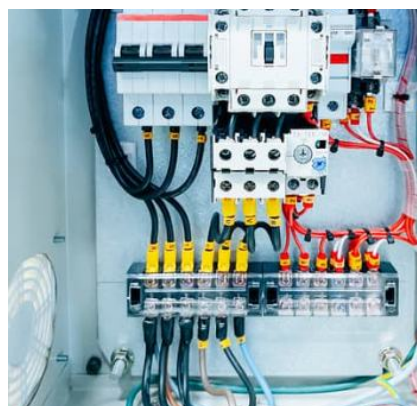


Applications

Electrical Cabinets



Wiring Cabinets



Switch Cabinets



Characteristics

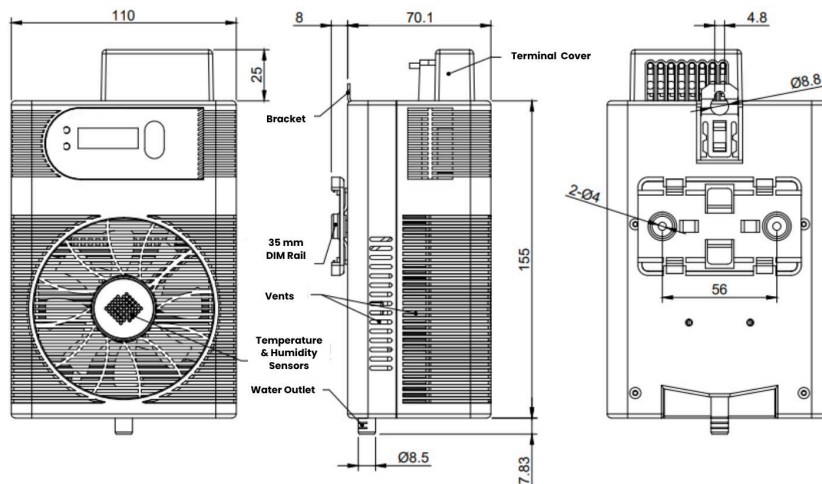
The PTSenR™ PTSPEC6 intelligent temperature control dehumidifier combines precise environmental sensing with intelligent control of humidity and temperature levels. It can automatically operate without manual intervention, including the activation of auxiliary heaters or fans as needed.

Designed for durability and stable performance, it offers strong anti-interference capabilities, seamless RS485 integration with monitoring systems, and a compact footprint for easy cabinet installation. With low power consumption and an intuitive human-machine interface, the unit ensures dependable moisture control across a wide range of electrical enclosures.



Dimensions

(Unit: mm)



Specifications

Working Voltage	AC/DC 220 V ± 20%	Temperature Measurement Accuracy	±1.5°C
Load Power	≤ 50 W	Humidity Measurement Accuracy	±4% RH (<80% RH), ±18% RH (≥80% RH)
External Load Power	< 500 W	Wireless Operating Bandwidth	433.92 MHz or 2.4 GHz
Insulation Withstand	2 KV 1 mA 1 minute	Transmission Power	10 dBm
Insulation Resistance	≥100 mΩ @ DC 500 V	Transmission Interval	90 seconds
Operating Temperature	-20°C ~+70°C	Transmission Distance	≤250m (open space)
Relative Humidity	< 95% RH	Protection Level	IP 65 (front panel)
Dehumidification Temperature Range	+5°C ~+45°C	Baud Rate	2400bps, 4800bps, 9600bps (default)
Dehumidification Humidity Range	>55% RH	Compliance	EN 62479; EN 61326; EN 220, 300, 301, 400, 489
Dehumidification Capacity	≥260 mL / 24 hrs (@35/85% RH)	Ordering Information	
Weight	0.7 Kgs	Part Number	Product Description
EMC	According to IEC 61000-4-11.2004	PTSPEC6	PTSenR™ Intelligent Temperature & Dehumidifier Control
Display Range	Temp -20°C ~+99.9°C; Relative Humidity 5% RH ~ 99% RH		